

DIRECTION FINDING METHOD AND SYSTEM USING DIGITAL DIRECTIONAL CORRELATORS

Abstract of the Disclose

In an interferometer system, a revolving antenna array is used to sufficiently resolve all ambiguities in determination of frequency and direction of arrival of a wave-front. The frequency and direction of arrival are determined by matching predicted phase difference codes with an actual code measured at the antenna array, utilizing a cross-correlation technique. The number of parameters that can be simultaneously uniquely determined by the system depends on if the antenna array is rotated in planar or conical surfaces, and if the cross-correlation is uni- or multi-dimensional. The antenna array may include more than one baselines to enhance the system sensitivity and finding capacity.